

A NEW SAWFLY FROM THE TRIASSIC OF QUEENSLAND (HYMENOPTERA: XYELIDAE).

Memoirs of the Queensland Museum 51(2): 558, 2005.—The earliest records of the Hymenoptera are a handful of Late Triassic sawflies from Central Asia, South Africa, and Australia (Riek, 1955; Rasnitsyn, 1964, 1969; Schlüter, 2000). These species belong to the basal Xyelidae (Archihymenoptera sensu Grimaldi & Engel, 2005). The first of these early xyelids to be discovered were two specimens from the Late Triassic Mt. Crosby Formation near Ipswich, Queensland for which Riek (1955) proposed *Archexyela* to accommodate *A. crosbyi*. Herein I provide the description of a second species (based on a third specimen: Fig. 1) of *Archexyela* from the same formation. The new species exhibits a number of significant differences from the type species but is placed in the same genus based on the shared combination of pterostigma sclerotized only at extreme base, otherwise membranous; 1r-rs meeting base of pterostigma; 2r-rs meeting Rs1 (rather than stem of Rs); Sc free to base of wing.

Family XYELIDAE Newman, 1835
Archexyela ipswichensis sp. nov. (Figs 1–2)

Archexyela sp., Jell, 2004: 106.

Archexyela sp., Grimaldi & Engel, 2005: 410.

Diagnosis. The new species can be distinguished from *A. crosbyi* by the evanescent vein (sclerotized only at its base) basad Sc-R loop (Fig. 2); Sc and R running alongside each other from base and briefly arching apart (to form small subcostal cell; here termed the Sc-R loop) before termination of Sc into Rs just before separation of Rs; second free abscissa of Rs nearly twice as long as 1r-rs (approximately equal in length in *A. crosbyi*); 2r-rs about as long as first free abscissa of Rs1 (2r-rs nearly twice as long as first free abscissa Rs1 in *A. crosbyi*); first free abscissa of Cu distinctly arched anteriorly; and first medial cell elongate.

Description. Forewing 10 mm long (as preserved); Sc free from base to slightly more than half distance to pterostigmal base, running abruptly alongside R (i.e., without subcostal cell between veins for most of their length), terminating into R just basad Rs separation; Rs arching posteriorly slightly before Sc termination to form a small subcostal cell for a short length (here termed the Sc-R loop: Fig. 2). Rs separating slightly distad termination of Sc into R and well proximad pterostigmal base (Fig. 2); first free abscissa of Rs only slightly angled toward wing apex; second free abscissa of Rs nearly twice as long as 1r-rs; 1r-rs meeting base of pterostigma; third free abscissa of Rs strongly arched posteriorly; 2r-rs meeting Rs1, about as long as first free abscissa of Rs1; M+Cu weakly arching anteriorly proximad separation of Cu; first free abscissa of M nearly twice as long as first free abscissa of Rs; Cu separating from M+Cu proximad level of Sc termination; Cu arching gently posteriorly; first medial cell elongate; 1cu-a relatively long, nearly three-quarters length second free abscissa Cu; 1A straight; crossvein a elongate, oblique; 2A+3A with typical proximal arch. Pterostigma elongate, narrowed (about as wide as costal cell), only sclerotized at extreme base, otherwise membranous (similar to *A. crosbyi*, *Asioxyela smilodon* Rasnitsyn, 1964, as well as various Cretaceous genera).

Holotype. Queensland Museum Fossil Collection 44154 (Fig. 1), Late Triassic, Carnian. Mt. Crosby Formation, Ipswich Coal Measures, from North of Ipswich, Queensland, Australia.

Etymology. From near Ipswich.

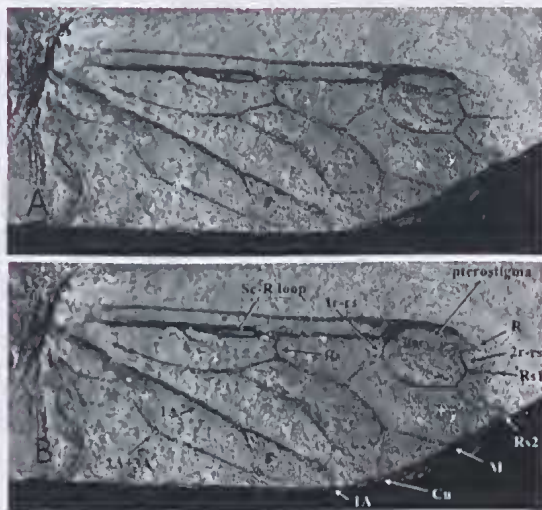


Fig. 1. Holotype of *Archexyela ipswichensis* sp. nov. (QMF44154). A. Forewing as preserved. B. Forewing with labels for particular venational elements overlaid.

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